Claims

1. Use of a polypeptide comprising the sequence of SEQ ID NO:1, or a functional fragment or derivative thereof, or of a nucleic acid comprising the sequence of SEQ ID NO:2, or a functional fragment or derivative thereof, for the manufacture of a medicament for the prophylaxis and/or treatment of a disease caused by an agent, wherein the agent possesses at least one accessible sulphate and/or at least one accessible phosphate group.

2. The use according to claim 1, wherein the agent is a microorganism.

3. The use according to claim 2, wherein the microorganism is a bacterium or a virus, the bacteria including the genera Streptococcus, Staphylococcus, Escherichia, Helicobacter, Salmonella and Bacillus.

4. The use according to claim 1, wherein the agent is a non-living compound or composition.

5. The use according to claim 4, wherein the non-living compound or composition is selected from the group consisting of DSS, sulphated carbohydrates, preferably heparan sulphate, chondroitin sulphate, carrageenan, disodium sulphate, phosphate group exposing compounds or compositions, preferably DNA, deoxynucleotides, surfactant phospholipids, sulphated mucins, sodium-, potassium- and calcium phosphate exposing compounds or compositions.

6. The use according to at least one of the claims 1 to 3, wherein the disease is an infectious disease.

7. The use according at least one of the claims 1 to 5, wherein the disease is an acute or chronic inflammation, preferably inflammatory bowel disease, more preferably ulcerative colitis.

8. The use according to at least one of the claims 1 to 5, wherein the disease is cancer.

9. The use according to claim 8, wherein the cancer is a cancer of the respiratory or alimentary tract.

10. Use of a polypeptide comprising the sequence of SEQ ID NO:1, or a functional derivative or fragment thereof, or of a nucleic acid comprising the sequence of SEQ ID NO:2, or a functional derivative or fragment thereof, for identifying an agent and/or regulating the effective amount of an agent in a sample,
wherein the agent possesses at least one accessible sulphate and/or at least one accessible phosphate group.

11. The use according to claim 10, wherein the identifying and/or regulating is carried out by using the at least one accessible sulphate and/or at least one accessible phosphate group.

12. The use according to claim 10 or 11, wherein the identifying and/or regulating is carried out by varying the amount and/or the length of the polypeptide or of the nucleic acid.

13. The use according to at least one of the claims 10 to 12, wherein regulating the effective amount of an agent includes inactivating and/or capturing said agent.

14. The use according to at least one of the claims 10 to 13, wherein the agent comprises an agent as defined in at least one of the claims 2 to 5.

15. The use according to at least one of the claims 10 to 14, wherein the sample is a biological, a food-derived, a pharmaceutical or a cosmetic sample.

16. Use of a polypeptide comprising the sequence of SEQ ID NO:1, or a functional fragment or derivative thereof, or of a nucleic acid comprising the sequence of SEQ ID NO:2, or a functional fragment or derivative thereof, for the manufacture of a diagnostic for diagnosing the susceptibility of an individual to an agent,
wherein the agent possesses at least one accessible sulphate and/or at least one accessible phosphate group.

17. Use of a polypeptide comprising the sequence of SEQ ID NO:1, or a functional or fragment derivative thereof, or of a nucleic acid comprising the sequence of SEQ ID NO:2, or a functional or fragment derivative thereof, for the manufacture of a

diagnostic for determining the effective dose of a pharmaceutical comprising an agent,
wherein the agent possesses at least one accessible sulphate and/or at least one accessible phosphate group.

18. The use according to claim 16 or 17, wherein the agent comprises an agent as defined in at least one of the claims 2 to 5.

19. Method for diagnosing the susceptibility of an individual to an agent which possesses at least one sulphate and/or at least one phosphate group, the method comprising detecting in a sample a polypeptide comprising the sequence of SEQ ID NO:1, a functional fragment or derivative thereof, or a nucleic acid comprising the sequence of SEQ ID NO:2, or a functional fragment or derivative thereof,
wherein a shortened polypeptide or a shortened nucleic acid as compared to the full-length polypeptide or nucleic acid is indicative of an increased susceptibility.

20. Method for determining in an individual the effective amount of a pharmaceutical comprising an agent which possesses at least one accessible sulphate and/or at least one accessible phosphate group, the method comprising detecting in a sample a polypeptide comprising the sequence of SEQ ID NO:1, a functional fragment or derivative thereof, or a nucleic acid comprising the sequence of SEQ ID NO:2, or a functional fragment or derivative thereof,
wherein a shortened polypeptide or nucleic acid as compared to the full-length polypeptide or nucleic acid is indicative for a lower effective amount.

21. The method according to claim 19 or 20, wherein the sample is a body fluid, preferably blood, saliva, semen or liquor, which is isolated from the individual.

22. Method for the treatment and/or prophylaxis of a disease caused by an agent which possesses at least one accessible sulphate and/or at least one accessible phosphate group, the method comprising contacting the agent with a polypeptide comprising the sequence of SEQ ID NO:1, or a functional fragment or derivative thereof.

23. The method according to claim 22, wherein the contacting is carried out by administering to a patient a pharmaceutical preparation containing a polypeptide comprising the sequence of SEQ ID NO:1, or a functional fragment or derivative

thereof, or a nucleic acid comprising the sequence of SEQ ID NO:2, or a functional or fragment derivative thereof.

24. The method according to at least one of the claims 19 to 23, wherein the agent comprises an agent as defined in at least one of the claims 2 to 5.

25. Use of at least one amino acid motif comprising 11 contiguous amino acids derived from a polypeptide comprising the sequence of SEQ ID NO:1, or of a nucleic acid encoding said amino acid motif, for the manufacture of a medicament for the prophylaxis and/or treatment of a disease caused by an agent, wherein the agent possesses at least one accessible sulphate and/or at least one accessible phosphate group.

26. The use according to claim 25, wherein the 11 contiguous amino acids possess a sequence selected from the sequences GRVEVLYRGSW, GRVEILYRGSW and GRVEVLYQGSW.

27. The use according to claim 26, wherein the 11 contiguous amino acids possess the sequence GRVEVLYRGSW.

28. Method for binding an agent which possesses at least one accessible sulphate group and/or at least one accessible phosphate group, the method comprising contacting the agent with an amino acid motif comprising 11 contiguous amino acids derived from a polypeptide comprising the sequence of SEQ ID NO:1.

29. The method according to claim 28, wherein the 11 contiguous amino acids possess a sequence selected from the sequences GRVEVLYRGSW, GRVEILYRGSW and GRVEVLYQGSW.

30. The method according to claim 29, wherein the 11 contiguous amino acids possess the sequence GRVEVLYRGSW.